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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,506	10/15/2003	Michael A. Milligan	0275R-000799	3538
27572 7590 03/12/2007 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER TILL, TERRENCE R	
			ART UNIT	PAPER NUMBER
			1744	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/12/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/686,506	<b>Applicant(s)</b> MILLIGAN ET AL.	
	<b>Examiner</b> Terrence R. Till	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-21 and 32-51 is/are pending in the application.  
     4a) Of the above claim(s) 20,21,35 and 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-19, 32-34, 37-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 17-19, 32-34, 37-44 and 48-51 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Ito et al. (2002-17621) in view of Bass et al. (US 5,787,546).

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5. With respect to claim 17, Ito et al. inherently discloses (figures 1-3) the method of filtering a dirt and debris laden air flow, the method comprising: providing a hand-held vacuum with a housing 10, a motor and impeller 11, a container 21 and a filter 22, the housing including a front wall and a handle 13 that is adapted to permit a user to employ the hand-held vacuum for vacuuming with a single hand, the impeller being disposed within the housing, the container having an integral inlet port 23 for receiving the dirt and debris laden air flow therethrough, the container defining a dirt collection chamber within container 21 in which the integral inlet port longitudinally extends, the container being attached to the housing 26,27 and forming at least a portion of an exterior surface (see figure 2) of the hand-held vacuum, the container being configured to retain dirt and debris removed from the dirt and debris laden air flow and at least a portion of the filter being disposed between the front wall and the inlet port; providing electrical energy to the motor to cause the impeller to rotate and generate the dirt and debris laden air flow; and swirling the dirt (see arrows in figure 2 how container is called "centrifugal dust removal section") and directing the dirt and debris laden air flow in the dirt cup through the container in a direction that is parallel to a longitudinal axis of the container, around a perimeter of the filter within an interior of the container. Ito et al. '17621 also disclose the method steps of removing the container from the housing to empty the container and wherein the container and the inlet port are fixedly coupled to one another. With respect to claim 32, Ito et al. '17621 disclose the very same structure outlined in the method and the inlet port 23 extending rearwardly toward the front wall when the dirt cup is coupled to the housing; and means for swirling the air flow about an interior of the dirt cup in a helical manner between the inlet port and the filter. The swirling means includes an elbow flow deflector 20 associated attached to the rear end of the inlet port of

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the dirt cup. With respect to claim 40, Ito et al. '17621 is considered to disclose (see figure 2) the flow deflector having an outlet and wherein the outlet faces a side of the dirt cup, and rearwardly toward the housing since, as can be seen in figure 1, The deflector is angled downward and slightly to the rear towards the filter. Ito et al. is also considered to disclose the dirt cup has a substantially smooth interior surface and the flow deflector alters the course of the air flow exiting the inlet port directing the dirt and debris laden air flow in the dirt cup through the container and thereafter in a direction about the filter before the dirt and debris laden air flow enters the housing so that the filter is not directly in-line with air exiting the inlet port. Ito et al. does not disclose the vacuum cleaner is driven by battery power. However, hand-held vacuum cleaners are notoriously known for being powered by either a wall outlet and electrical cord or battery powered. The patent to Bass et al. discloses a hand-held vacuum cleaner that can be powered by either a wall outlet and electrical cord, or a battery (see column 4, lines 20-30). Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to provide the vacuum cleaner of Ito et al. with a battery to power the vacuum cleaner in view of the teaching of Bass et al.

6. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Ito et al. (2002-17621), as modified by Bass et al., as applied to claim 44 above, and further in view of patent to Ito et al. (2002-136456).

7. Japanese patent to Ito et al. '17621, as modified by Bass et al., does not disclose the elbow includes an attachment portion and wherein one of the attachment portion and the inlet port is received into the other one of the attachment portion and the inlet port. The Japanese patent to Ito et al. '136456 discloses a very similar device that also includes (see figures 2-4) an

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attachment portion and wherein one of the attachment portion and the inlet port is received into the other one of the attachment portion and the inlet port. Also, Ito et al. '136456 disclose the attachment portion and the inlet port are frictionally engaged to one another and the elbow is removably coupled to the inlet port. It would have been obvious to a person skilled in the art at the time the invention was made to provide an inlet portion and an elbow that has an frictionally engaged attachment portion to Ito et al. '17621, as modified by Bass et al., in view of the teaching of Ito et al. '136456 in order to disassemble the vacuum cleaner device for cleaning the elements.

#### ***Response to Arguments***

8. Applicant's arguments filed 1/23/07 have been fully considered but they are not persuasive.
9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is clear from the patent to Bass (column 4, lines 20-30) that providing a hand held vacuum cleaner with batteries to be battery powered is quite well known and rendered obvious to provide to the device of Ito et al. '17621. With respect to *ACS Hospital Systems, Inc. v. Montefiore Hospital* and applicant's argument that the only source of the suggestion to combine the prior art references was the appellant's patent itself, it is believed applicant is

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misconstruing the case law. Appellant's patent, in this case, is Bass et al. and was published in 1998 and qualifies as prior art under 35 USC 102(b). To put it bluntly, using either a cord power source or batteries was so well known in the art that even the employees (Bass et al.) of Black & Decker knew it and chose to mention it in their patented application as being obvious mechanical equivalents.

10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Saying that Bass et al. does not employ a swirling action is irrelevant as Bass et al. is not relied on to disclose that part of the claimed invention.

11. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., mass flow rate of fan and battery life- see page 11, para. 2 of arguments; an inlet port that extends longitudinally in a dirt container- page 12 last paragraph) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, the grounds of rejection have been clarified to indicate that element 21 is the dirt container. Ito et al. '17621 mentions, in the translation provided by the examiner, that element 21 is a "dust box" (see para. 33 of translation). Claim 17 recites "swirling the dirt and debris laden air flow around a perimeter of the filter within an interior of the container." Claim 32 recites "means for swirling the air flow about an interior of the dirt cup in a helical manner between the

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inlet port and the filter.” Claim 37 recites “a flow deflector *associated* (emphasis examiner) with the inlet of the dirt cup, the flow deflector being configured to direct the air flow toward an interior surface of the dirt cup in a manner that causes dirt and debris entrained in the air flow to swirl circumferentially around the interior surface of the dirt cup.” Claim 49 recites “a flow deflector *associated* (emphasis examiner) with the inlet of the dirt cup, the flow deflector being configured to direct the air flow toward an interior surface of the dirt cup in a manner that causes dirt and debris entrained in the air flow to swirl circumferentially around the interior surface of the dirt cup.” Claim 51 recites “directing the dirt and debris laden air flow in the dirt cup through the container in a direction that is parallel to a longitudinal axis of the container and thereafter in a direction about the filter before the dirt and debris laden air flow enters the housing so that the filter is not directly in-line with air exiting the inlet port.” None of these independent claims, nor any dependent claims, say the inlet port extends longitudinally *in* a dirt collection chamber or container.

12. With respect to applicant’s arguments that the structure (23) identified by the Office as being the inlet port discharges air directly against the filter as shown in Figure 6 of Ito et al., such is simply not true. the flow is clearly tangential to the filter; not that applicants actually claim the airflow does not impinge upon the filter at all.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**



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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys P. Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Terrence R. Till  
Primary Examiner  
Art Unit 1744

trt